

REMARKS

Claims 1, 3, 5-15, and 19 are pending in the application. By this Amendment, claims 1 and 19 have been amended. Support for the amendment to independent claim 1 is found at least at original claim 2. Claim 2 has been canceled without prejudice or disclaimer. No new matter has been added.

Claims 1-3, 5, and 19 are rejected under 35 U.S.C. §102(b) as being anticipated by, or, in the alternative, under 35 U.S.C. §103(a) as being unpatentable over JP-1-132642 to Shimada et al.

Shimada was provided with the Office Action along with a machine translation of the abstract. The Office Action asserts that the density of the beads and the cell size of the foamed beads can reasonably be considered to correspond to the recitations in claim 1. In particular, the Office Action relies on the illustrative examples. However, when an abstract is used to support a rejection, the evidence relied upon is the facts contained in the abstract, not additional facts that may be contained in the underlying full text of the citation. Thus, as set forth in MPEP 706.02(II), the Office must provide a translation of the underlying citation if the next Office Communication is to be a final Office Action.

As appreciated by the Examiner, Shimada fails to suggest a proportion of open cells, as claimed. However, the Office Action asserts that the process in Shimada inherently results in a proportion of open cells as claimed and shifts the burden to Applicants to provide evidence as to why Shimada's beads do not have a corresponding open cell proportion.

By this Amendment, claim 1 has been amended to recite that the propylene polymer is a homopolymer or copolymer of propylene with up to 15% by weight of a monomer selected from the group consisting of ethylene and 1-butene and mixtures thereof.

According to Shimada, particles comprising a mixture of a specified modified polyolefin resin with a polyamid resin are impregnated with a volatile blowing agent. The polypropylene resin is modified by reaction with an aliphatic unsaturated carboxylic acid, such as maleic

anhydride in the presence of a radical generator to obtain a modified polyolefin resin. This modification changes the polarity of the polypropylene resin and makes it more compatible with the polar polyamide. A mixture with a specific sea-island structure is obtained. Because of the compatibilization of the polypropylene, it is unlikely that the polyamide functions as a cell opener.

Further, the process for the preparation of the foam beads is different, which makes the resulting cell structure unpredictable. The open-celled beads according to the instant claims are obtained by quickly decompressing the reactor after impregnation of the polymer granulates by a volatile blowing agent. See, for example, page 4 line 1 and the examples at page 5, lines 35 to 41. Expandable particles are not isolated.

In contrast hereto, Shimada suggest the production of expandable polyolefin resin particles, the title particles, which are obtained in the process described in the abstract. These particles are pre-expanded and molded, indicating that the pre-expansion to foam particles is performed in a separate step, i.e., by steam, which is analogous to the pre-foaming step in the preparation of expandable polystyrene (EPS).

Thus, a skilled artisan would not use the polymer blend of comparative example 2 relied on in the Office Action to prepare foam beads instead of resin particles because Shimada suggests that the presence of maleic anhydride is required for compatibilization of the polypropylene.

Claims 3, 5, and 19 are in condition for at least their respective dependence on an allowable claim 1, as well as for the separately patentable subject matter that each of these claims recites.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Application No. 10/519,801
Amendment dated June 2, 2010
Reply to Office Action of December 4, 2009

Docket No.: 12810-00007-US

Applicants concurrently herewith submit the requisite fee for a Petition for a three-month Extension of Time. Applicants believe no additional fee is due with this response. However, if any such additional fee is due, please charge our Deposit Account No. 03-2775, under Order No. 12810-00007-US from which the undersigned is authorized to draw.

Dated: June 2, 2010

Respectfully submitted,

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